



Loudoun County Health Department

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Memorandum

To: Larr Kelly, Zoning Division, Department of Building and Development (#60)

From: Jerry Franklin, Environmental Health Supervisor
Alan Brewer, Environmental Health Manager
Loudoun County Health Department

Date: February 23, 2009

RE: Referral Comments
ZOAM 2009-0001/DOAM 2009-0002: Limestone Overlay District

The Loudoun County Health Department reviewed the draft Amendments to Chapter 1040 of the Codified Ordinances, Chapter 1066 of the Codified Ordinances, the Zoning Ordinance, Facilities Standards Manual, and the Land Subdivision Development Ordinance and offers the following comments.

Chapter 1040 of the Codified Ordinances

1040 Table 1A

- The Health Department is not aware of the scientific/public health basis for increasing the horizontal distances from wells to rims of sinkholes, cave openings, outcrops, solution channels, and springs. An outcrop is solid rock which is desirable for well drilling. A solution channel cannot be detected by surface examination therefore it would be problematic if a well is drilled and it is later determined that the well is too close to a solution channel.

1040.03 (B)

- Change the word withdraws to withdraw.

General Comment

- There will be cases where existing lots of record become unbuildable because the offsets in 1040 Table 1 A cannot be met. There will be cases where the Health Department has issued well permits where the increased offsets cannot be met. What is intended to be done for existing approved well sites that do not meet these setbacks? Is it possible for existing lots, sites, and permits to be grandfathered?

Chapter 1066 of the Codified Ordinances

1066.11 (e) (6)

- If the reason for the 50' offset to a rock outcrop is to prevent contamination from bacteria and pathogens, the Health Department is not aware of a scientific basis for this increased offset. Recommend 10' with no allowance for a geophysical study to reduce the offset further.
- The Virginia Department of Health Sewage Handling and Disposal Regulations require that drainfields be placed 200' from developed springs if upslope from the spring and 100' from the spring if placed down slope. This offset exists to protect drinking water supplies. The proposed offset in this section appears to apply to all springs not just developed springs. This offset to all springs is more conservative than offsets to impounded waters and streams. The reason for the increase should be evaluated further.
- The term "individual sewage disposal system" includes all components of the system from the building sewer through the treatment system to the dispersal area. The necessity for an increased offset to watertight components should be evaluated further. The exact location and design of the individual sewage disposal system is determined at the time of construction of the system. This could result in the requirement for many geophysical studies over a period of time in order to comply with the ordinance. Is the intent to require a geophysical study for all components of the individual sewage disposal system or just the area used for dispersal of the sewage effluent?

General Comment

- There will be cases where existing lots of record become unbuildable because the proposed offsets in Chapter 1066 cannot be met. There will be cases where the Health Department has issued sewage disposal system construction permits where the increased offsets cannot be met. What is intended to be done for existing approved onsite sewage disposal system site approvals that do not meet these setbacks? Is it possible for existing lots, sites, and permits to be grandfathered?

Appendix II

- Concerning the offsets see comments under section 1066.11 (e) (6) above.
- Define the phrase “other karst features”.

Zoning Ordinance

4-1907(f)

- It does not appear that the language in section 4-1907 (f) adds any additional requirements.

4-1907(g)(1)

- It appears that the intent of this section is to require that a communal system be located outside the Karst/ Sensitive Environmental Feature Setback, however, the standard stated is merely that sufficient area outside the Karst/Sensitive Environmental Feature Setback exists, not that the communal system be located outside this area.

4-1907(m)

- Chapter 1066 of the Codified Ordinances has no requirements for maintenance of onsite sewage disposal systems. Chapter 1067 of the Codified Ordinances requires maintenance of non-conventional onsite sewage disposal systems installed or permitted after November 3, 2008.

FSM Chapter 6

6.212e

- This section should not be deleted. The Department is not aware of any studies that confirm that chemically or physically altered well yields are sustainable.

6.152

- Low-bearing should be load-bearing.